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PATENT
CUSTOMER NUMBER, 34,986
Attorney Docket No. 01064.0011-04-000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Richard LEVY

Serial No.: 09/357,957

Filed: July 21, 1999

For: LUBRICANT COMPOSITIONS AND
METHODS

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) Group Art Unit: 1714
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) Examiner: Cephia D. Toomer
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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

APPELLANT'S BRIEF ON APPEAL PURSUANT TO 37 C.F.R. § 41.37 (AMENDED)

In a further delay of the prosecution of this appeal, the examining group in their September 4, 2007 Office communication, now reject appellant's August 7, 2007 Brief on Appeal since it does not contain a statement relative to the cancelled claims, even though the examining group could have made this objection in the Patent Office July 11, 2007 Office communication, but did not. Incredibly, they correctly identify these cancelled claims by claim number in the September 4 Office communication, so they are well aware of the status, but nonetheless, and for some unknown reason, require another iteration or statement in this regard for insertion in the "status of claims" section of this brief. The September 4 Office communication states in this regard "The status of cancelled claims 1-28, 33, 44-47, 50-52, 54 and 69-71 are not included in the status of claims section." (September 4, 2007 Office

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communication, last page, last line) (Emphasis in original). Appellant responds with this brief to address the issue.

Previously, the examiner, rather than timely submitting an Answer to Appellant's May 25, 2006 Appeal Brief, delayed responding by more than 14 months and in stead filed a July 11, 2007 office Communication based on an incredibly delayed argument that the Brief did not indicate where the written description supported the elements of claim 55. Appellant will address this in the sections that follow, showing where the previously filed brief did in fact support the claim 55 elements, and otherwise submits this brief to set forth the authorities and arguments on which appellant will rely to maintain the appeal.

The Code of Federal Regulations, 37 C.F.R. § 41.20 (b) (2), required payment of a \$250.00 fee for filing the May 25, 2007 brief; however, appellant filed an appeal brief in this application on March 1, 2002 with an appeal fee of \$160.00. The Manual of Patent Examining Procedure § 1208.02 waives payment of \$160.00 of the \$250.00 fee in these circumstances. Accordingly, on May 25, 2006 appellant submitted PTO FORM 2038 with their Brief on Appeal for payment of the \$90.00 balance due.

(i) Real party in interest

The inventor assigned the parent application Serial No. 08/487,436, filed June 7, 1995 to Lee County Mosquito Control District. The assignment was recorded at reel 7878, frame 0620 on August 23, 1995, which makes Lee County Mosquito Control District the real party in interest.

(ii) Related appeals and interferences

Appellant has co-pending appeals before the Board of Patent Appeals and Interferences in the following related applications:

| | |
|-----------------------|---|
| Serial No. 08/943,125 | Filed October 3, 1997 (Attorney Docket 01064.0011-02-000) |
| Serial No. 10/614,114 | Filed July 7, 2003 (Attorney Docket 01064.0011-08-0000) |
| Serial No. 09/359,809 | Filed July 23, 1999 (Attorney Docket 01064.0011-05-0000) |

The Board of Patent Appeals and Interferences rendered a decision in an appeal on application Serial No. 08/943,125 Filed October 3, 1997 on February 27, 2006, reversing the examiner in all respects, but remanding the application to the examiner for further action. The Patent Office, however, labeled the file jacket of that application as follows:

U. S. PATENT AND TRADEMARK OFFICE
RETURN TO (PTO 1058)
INTERFERENCE SERVICE BRANCH
This case is involved in an
Interference Proceeding

Appellant includes in section "(x) Related proceedings appendix" of this brief the Board's February 27, 2006 decision in application Serial No. 08/943,125 and a certified copy of the file jacket of that application showing the foregoing label regarding the interference. Appellant also included that label as an attachment to appellant's brief in Serial No. 08/943,125.

The Patent Office has not notified appellant that they have declared an interference in any of the foregoing applications, even though they indicated on the file of application Serial No. 08/943,125 "[t]his case is involved in an Interference Proceeding." The Board also took the position, when contacted by appellant's attorneys by telephone, that the Patent Office had not declared an interference, in application Serial No. 08/943,125. Lastly, the Board's decision in the pending appeal could directly affect, or be directly affected by, or having a bearing on the decision in the co-pending appeals.

(iii) Status of claims

The April 11, 2006 Office communication rejected claims 29-32, 34-38, 41-43, 48, 49, 53, 55, 56, 58, 60-62, 64, 66-68, 72-85, 93, and 95-97, but objected to claims 57, 59, 63, 65, 86-92, and 94.

The Examiner did not reject independent claim 39 and claim 40 dependent on claim 39. These claims therefore stand as allowed claims. The claim appendix of this brief includes a copy of each of the foregoing claims, and to address the Office communication of September 4,

2007, all other claims presented during the prosecution of this application and that do not appear in the claims appendix of this brief have been cancelled without prejudice or disclaimer, i.e., claims 1-28, 33, 44-47, 50-52, 54 and 69-71.

(iv) Status of amendments

The Examiner has entered all amendments to the claims.

(v) Summary of claimed subject matter

The invention of independent claim 29 comprises a lubricating composition of matter comprising a polymer, where the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface. The material for lubricating a surface in turn comprises:

- (1) a lubricating metal and alloy thereof, a lubricating metal chalcogenide, halide, carbonate, silicate or phosphate, or a particulate lubricating metal nitride, or a carbon lubricant; or
- (2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;
- (3) the material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or
- (4) mixtures thereof.

The written description describes the superabsorbent polymer inter alia, at page 21; the lubricating metal inter alia, in the paragraph bridging pages 14 and 15, pages 15, first full paragraph 17 first full paragraph, and 24 last full paragraph, and alloys thereof inter alia, on page 24, with the disclosure of babbitt, bronze, and brass (lines 3-4 from the bottom); chalcogenides inter alia, at pages 17 (lines 14-15) and 24 (lines 18-23); halides inter alia, on page 24 (lines 22-24); carbonates inter alia, on pages 16 (lines 20-21) and 24 (lines 22-24);

silicates inter alia, on pages 14 (line 17), and 24 (lines 22, 24) with the disclosure of asbestos, talc, and mica; phosphates inter alia, on pages 10 (line 2) and 11 (lines 2-4); particulate lubricants inter alia, on pages 3 (last line), 4 (lines 2-5), 14 (last line) to 18, 24 (lines 12-16) and 27 (paragraphs 3-4); metal nitride inter alia, on pages 15 (line 6) and 24 (line 22) (for the purpose of the present invention, boron nitride comprises a metal nitride); silicate esters inter alia, on page 12 (paragraph 3); polyphenyl ethers inter alia, on pages 10 (line 2) and 12 (paragraph 2); phosphates inter alia, on pages 8 (lines 21-22), 10 (line 2), 11 (lines 1-3 from the bottom), and 25 lines 3-4); phenanthrene inter alia, or phthalocyanine compounds inter alia, on page 17 (lines 1-5); and organic lubricants, inorganic lubricants, or water and a lubricant additive or mixtures thereof on pages 7-9 (additives), and pages 23, 25 and 26 (mixtures).

Specifically, as to mixtures, page 23, penultimate paragraph of the written description states that the invention relates to "various mixtures of each of the foregoing lubricants. . . ." whereas page 25 first paragraph notes that "mixtures of the solid or particulate lubricants (of the invention) can be used. . . ." and paragraph 2 notes that the invention also includes the use of "mixtures of the organic lubricants. . . ." Appellant also points out that the paragraph bridging pages 25 and 26 describes "mixtures of the solid or particulate organic lubricants. . . ." which comprise some of the lubricants employed according to the invention, and that the first full paragraph on page 26 further describes the lubricants of the invention as "combinations of the solid or particulate inorganic lubricant and the solid or particulate organic lubricant. . . ."

The metal nitride material for lubricating a surface comprises a particulate material which the written description supports at page 17, paragraph two. The invention further comprises a silicate as one of the types of lubricating materials, which the written description supports at page 14, first full paragraph and page 24 last paragraph by the recitation of the materials "asbestos," and "talc," and page 15 first full paragraph, line 3 and page 24, line 6 from the

bottom by the disclosure of "mica." Claims 32 and 34 specify mica as one of the lubricating materials.

Claim 29 also comprises a composition optionally including a lubricant such as an "organic lubricant . . . or water" in the composition or when employing the composition in the claimed method, which the specification supports, e.g., original claim 4 inter alia.

The independent invention of claim 30, comprises a lubricating composition of matter comprising a polymer, where the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein the material for lubricating a surface comprises a solid or particulate inorganic lubricant, containing an organic lubricant, optionally comprising water, or a lubricant additive, or mixtures thereof.

Appellant's comments regarding support of the claim 29 parameters apply to claim 30 in several respects, i.e., superabsorbent polymers, particulate lubricants, water, lubricant additives, and mixtures thereof.

The January 18, 2006 amendment to the written description describes the material for decreasing friction as "a solid inorganic lubricant." Original claim 5 of the parent application (Serial No. 08/487,436 filed June 7, 1995) claims the invention as a "composition . . . wherein the material for decreasing friction comprises a solid inorganic lubricant. . . ." (Emphasis added), and as noted previously, appellant incorporated this disclosure into the written description of this application.

The independent invention of claim 35 comprises a lubricating composition of matter comprising a polymer wherein the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, wherein the material for lubricating a surface comprises water

containing a lubricant additive. Appellant's comments regarding support of the claim 29 parameters also apply to claim 35 in respect of superabsorbent polymers, water, and lubricant additives.

The independent invention of claim 39 comprises a lubricating composition of matter comprising a polymer wherein the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, wherein the material for lubricating a surface comprises a phosphate, and wherein the material for lubricating a surface optionally contains a lubricant additive.

Appellant's comments regarding support of the claim 29 parameters also apply to claim 39 in all respects. These comments specify the support for superabsorbent polymers, phosphates and lubricant additives.

The independent invention of claim 55 comprises a lubricating composition of matter comprising a polymer, wherein the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface which comprises a chalcogenide of a non-noble metal or mixtures of chalcogenides of a non-noble metal, optionally containing a lubricant additive.

Appellant's comments regarding support of the claim 29 parameters also apply to claim 55 in all respects. These comments specify the support for superabsorbent polymers, chalcogenides, and lubricant additives.

On July 11, 2007, more than 14 months after appellant filed the May 25, 2006 Brief on Appeal that set forth this position the examiner stated:

the Appeal Brief is defective because Appellant did not correctly map the claimed subject matter of claim 55. Appellant states that the comments regarding the parameters of claim 29 also apply to claim 55 in all respects. However, claim 55 contains limitations that are not

present in claim 29, and claim 29 contains claim limitations that are not in claim 55.

July 11 office Communication, p.2, par 10.

The examiner omits appellant's statement that "[t]hese comments [i.e., the comments in the May 25, 2006 Appeal Brief regarding claim 29] specify the support for superabsorbent polymers, chalcogenides, phosphates, and lubricant additives [in claim 55]." (May 25, 2006 Appeal Brief, p. 6, par. 4.) Any reasonable reading of this statement shows appellant did not state directly, or for that matter imply, that all of the elements of claim 55 applied to claim 29, as the examiner now argues. Only a misreading of the brief would lead to such error. Appellant's statement narrowed in on the specific claim 55 elements (superabsorbent polymers, chalcogenides, and lubricant additives) and unequivocally took the position that these elements were also described in claim 29, previously discussed in the brief, not that claim 29 contained all of the claim 55 elements, but only a limited class of the claim 29 elements.

The examiner in doing this has wasted 14 months of time and delays resolution of the appeal by the Board of Appeals.

The independent invention of claim 83 comprises A process of producing a lubricating composition of matter comprising combining a polymer with a material for lubricating a surface;

wherein the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water; and

wherein the material for lubricating a surface comprises a particulate inorganic lubricant containing an organic lubricant, optionally comprising water, or a lubricant additive;

or mixtures thereof.

Appellant's comments regarding support of the claim 29 parameters also apply to claim 83 in several respects. These comments specify the support for superabsorbent polymers,

inorganic lubricants, organic lubricants, water and lubricant additives or mixtures thereof. The written description supports the process for making the composition at pages 28-30.

The independent inventions of claims 85 and 96 comprises respectively a lubricating composition of matter comprising a polymer, where the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, and a process for producing this lubricating composition comprising combining the polymer and the material for lubricating a surface, wherein the material for lubricating a surface comprises:

(1) graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, particulate boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbit, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, the Group VIII noble metals or mixtures thereof; or

(2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;

(3) the material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or

(4) mixtures thereof.

Appellant's comments regarding support of the claim 29 parameters also apply to claims 85 and 96 in all respects. These comments specify the support for superabsorbent polymers, lubricants and lubricant additives. Specifically, the written description, inter alia, supports lubricating materials at pages 15, 17, and 24, and mixtures at pages 25-26.

(vi) Grounds of rejection to be reviewed on appeal

Appellant seeks review of the following grounds of rejection on appeal:

1. Whether claims 29-31, 68, 72-79, 83, and claims dependent thereon contain subject matter described in the written description so as to convey to a person with ordinary skill in the art that the inventor was in possession of the claimed invention at the time he filed the application, as required by 35 U.S.C. § 112, first paragraph?
2. Whether the written description supports the claim 29 "lubricating metal and alloy thereof . . . , "a particulate lubricating metal nitride . . . , " or "carbonate," as required by 35 U.S.C. § 112, first paragraph?
3. Whether the written description supports the claim 30 and 83 solid or particulate inorganic lubricant containing an organic lubricant as required by 35 U.S.C. § 112, first paragraph?
4. Whether the written description supports the claim 31 invention that includes all metal materials that provide barrier-layer lubrication as required by 35 U.S.C. § 112, first paragraph?
5. Whether the written description supports the claim 68-72, 79, and 95 invention directed to substantially anhydrous compositions as required by 35 U.S.C. § 112, first paragraph?
6. Whether the written description supports the claim the claim 85 and 96 particulate boron nitride lubricants as required by 35 U.S.C. § 112, first paragraph?
7. Whether Takayama, United State Patent 5,792,717 anticipates claims 29, 31, 32, 68, 72, 73, 85, 93, and 95-97 under 35 U.S.C. § 102(b).

8. Whether Johnson United States Patent 5,275,760 in view of Obayashi et al. United States Patent No. 4,340,706 ("Obayashi") make claims 29, 31, 34-38, 41, 42, 48, 49, and 53 obvious under 35 U.S.C. § 103 (a).
9. whether Martineu et al., United States Patent No. 4,977,192 ("Martineu") makes claims 29, 31, 35, 53, 55, 56, 61, 68, 72, 85 93, 95-97 obvious under 35 USC. § 103 (a).

The Rejections Under 35 U.S.C. § 112, First Paragraph

The Written Description Enables Claims 29-31, 68, 72-79, 83, and claims dependent thereon

The Examiner rejects claims 29-31, 68, 72-79, 83, and claims dependent thereon alleging the written description does not support the claimed compounds comprising a "lubricating metal and alloy thereof . . . , "a particulate lubricating metal nitride . . . , " or "carbonate."

As to the "lubricating metal and alloy thereof . . . , " and other claimed lubricants, appellant has not listed all of the known lubricants in the written description, nor does he have to. The prior art has done this for him. For example the written description, page 18 cites inter alia kirk-Othmer, Encyclopedia of Chemical Technology, Second Edition, pp. 559-595, as listing other examples of lubricants that fall within the scope of the present invention, and incorporates this reference into the written description. Also, the IDS filed on January 20, 2006, lists some 44 exemplary lubricant material patents issued prior to the filing date of the present application which the skilled artisan would have available to her or him for describing various art known lubricants classified in Class 508, subclasses 121, 123, 124, 129, 150, 178, and 180 inter alia, which according to the class and subclass definitions include lubricant compositions based on "metals," "alloys," "silicon," "other inorganic materials" (e.g., "nitrides" etc.), or inorganic materials including metal chalcogenides (e.g., "oxides," "sulfides" etc.) and metal "carbonates."

The specification lists multiple examples of these and other lubricants, as does the prior art, and addresses the skilled artisan who knows these materials. In fact appellant specifically notes his invention applies to known prior art lubricants by stating that:

These and other advantages are obtained according to the present invention, which is the provision of a composition and a process to enhance the various advantages of the related art and which also substantially obviate one or more of the limitations and disadvantages of the described prior compositions of matter and processes.

The description which follows sets forth additional features and advantages of the invention, apparent not only from the description, but also by practicing the invention. The written description and claims hereof particularly point out the objectives and other advantages of the invention and show how they may be realized and obtained.

To achieve these and other advantages, and in accordance with the purpose of the invention, as embodied and broadly described, the invention comprises a lubricant composition of matter comprising a superabsorbent polymer combined with a material for decreasing friction between moving surfaces or a lubricant as described herein.

(Written description, pp.19 and 20, emphasis added). The "related art" in this application comprises the lubricant materials and compositions described on pages 1-19 of the application and include inter alia, "petroleum lubricants," "additives," "synthetic lubricants," "greases," "solid lubricants," and "metal working lubricants." Appellant did not invent the art known lubricants, but rather the claimed combination of these lubricants with art known superabsorbent polymers.

Therein lies the novelty and patentability of the invention. In setting out his invention in the specification by disclosing a very large number of the art-known lubricants, but not all of them, appellant follows the historic legal criterion that allows him to "begin at the point where his invention begins, and describe what he has made that is new, and what it replaces of the old. That which is common and well known [such as the art known lubricants] is as if it were written out in the [application]" Webster Loom Co. v. Higgins, 105 U.S. 580, 586 (1881).

Specifically, as to the "lubricating metal and alloy thereof . . .," and as pointed out before, the written description, inter alia, describes the lubricating metal in the paragraph bridging pages 14 and 15, pages 15, 17 and 24, comprising about 30 metals and about 30 metal compounds. The written description describes alloys of metals on page 24 with the disclosure of babbitt, bronze, and brass. Appellant's January 20, 2006 Invention Disclosure Statement ("IDS"), page 2 lists exemplary patents of lubricating "metals" and "alloys" from Class 508, subclass 123 of the United States classified Patents and known to the skilled artisan. These patents issued prior to the filing of the present application and include:

Class 508, Subclass 123, lubricant alloys or elemental metals:

Gardos et al. U. S. Patent No. 4,376,710, lubricants comprising alloys of,

Ga / In / WSe₂

Mo / Nb / Cu / MoS₂

MoS₂ / Ta₂.

Lemmer U.S. Patent No. 4,050,932, lubricants comprising copper alloys.

This class and subclass also contain numerous patents describing art-known metal lubricants.

The IDS also lists at pages 4-6 several representative metal alloy patents from Class 508 subclass 150 of the United States classified Patents for lubricant metal alloys or metals, issued before the filing of the present application, and include:

Class 508, Subclass 150, lubricant alloys or metals:

Rao et al. U.S. Patent No. 5,663,124, low alloy steel powders with solid lubricant properties, e.g., alloys of Fe, Mn, Ni, Cu, and, C.

Strumban U.S. Patent No. 5,523,006, lubricants comprising Cu, Ni, Sn and Cu, Ni, Sn, Zn alloy.

Weischel et al. U.S. Patent No. 5,397,485, lubricants comprising alloy particles of Pb/Cu, Pb/Cu/Zn or Sn or other metals.

Sugimara et al. U.S. Patent No. 5,013,464, lubricants comprising Ga or alloys of Ga with at least one of In, Zn, Sn, or Al.

Buran et al. U.S. Patent No: 4,756,841, lubricants comprising a coating of Ni/CrC or Mo/Ni alloy and at least one of Cr, CrC or MoC.

Jamison U.S. Patent No. 4,647,386, lubricants comprising Nb, Ta or W or alloys thereof with at least one of Cr, Vd, Mo, W or Fe.

Palmer U.S. Patent No. 4,541,984, lubricants comprising a coating of alloys of Zr, Yt, Ti, Ce, Co, Ni, Cr and compounds or mixtures thereof.

Hurst U.S. Patent No. 4,076,637, lubricants comprising alloy powders based on Sn, Bi Cd, Pb, In or Ga.

Burke U.S. Patent No. 3,994,697, lubricants comprising metal alloys for combining with MoS₂ for lubricating an engine.

De Hart et al. U.S. Patent No. 3,939,081, lubricants comprising a chrome alloy of carbon steel.

The written description similarly supports the claim 29 "particulate lubricating metal nitride . . .," with the particulate lubricants at pages 3-4, 14-18, and 27, and metal nitrides at pages 15 and 24. For the purpose of this invention appellant has defined boron nitride as a metal nitride. The written description also supports the claim 29 "carbonate" at pages 16 and 24. The January 20, 2006 IDS also shows the various nitride and carbonate lubricants known in the art at the time appellant filed this application. These references include inter alia:

Class 508, Subclass 129, lubricants with inorganic compounds:

Lum et al. U.S. Patent No. 5,468,401, lubricants comprising dibutyltin carbonate and boron nitride.

Rao et al. U.S. Patent No. 5,363,821, lubricants comprising boron nitride.

Swazaki et al. U.S. Patent No. 5,346,634, lubricants comprising sodium polycarbonate, CaCO_3 , BN_3 , SnO , PbO , ZnO , CaO , CuO , and Al_2O_3 .

Jacobs U.S. Patent No. 5,049,289, lubricants comprising CaO , MgO , ZnO , CaCO_3 , MgCO_3 , and ZnCO_3 .

Mendelson et al. U.S. Patent No. 4,909,951, lubricants comprising calcium thiocarbonate, calcium trithiocarbonate, and calcium tetrathiocarbonate.

Dumdum et al. U.S. Patent No. 4,908,142, lubricants comprising calcium thiocarbonate, calcium trithiocarbonate, and calcium tetrathiocarbonate.

Periard et al. U.S. Patent No. 4,575,430, lubricants comprising boron nitride.

Jain et al. U.S. Patent No. 4,287,073, lubricants comprising sodium bicarbonate, sodium pentaborate, and sodium molybdate.

All of the foregoing show that the appellant, a person with ordinary skill in the art, was in possession of the invention now claimed at the time he filed this application.

Separate Argument Pursuant to 37 C.F.R. § 41.37 (c) (1) (vii) Regarding the Rejection of Claims 30 and 83 Under 35 U.S.C. § 112 First Paragraph

The Written Description Enables Claims 30 and 83 Relating to Solid or Particulate Inorganic Lubricants Combined with Solid or Particulate Organic Lubricants

The Examiner rejects claims 30 and 83 asserting that the written description does not support the claimed compounds comprising a solid or particulate inorganic lubricant containing an organic lubricant. On the contrary, the written description sets out solid and particulate lubricants on pages 3-4, 14-18, 25-27, and 28, with page 26 specifically noting "[c]ombinations of the solid or particulate Inorganic lubricant and the solid or particulate organic lubricant can also be employed" (Emphasis added).

**Separate Argument Pursuant to 37 C.F.R. § 41.37 (c) (1) (vii) Regarding the Rejection of
Claims 31 Under 35 U.S.C. § 112 First Paragraph**

The Written Description Enables the Claim 31 Barrier Layer Lubricants

The examiner rejects claim 31 for the reason that the specification does not support all metal materials that provide barrier layer lubricants. Appellant disagrees since pages 14-15 of the written description note in this regard:

Solid lubricants include inorganic compounds, organic compounds, and metal in the form of films or particulate materials to provide barrier-layer type of lubrication for sliding surfaces. These materials are substantially solid at room temperature and above, but in some instances will be substantially liquidus above room temperature.

The inorganic compounds include materials such as cobalt chloride, molybdenum disulfide, graphite, tungsten disulfide, mica, boron nitride, silver sulfate, cadmium chloride, cadmium iodide, borax and lead iodide. These compounds exemplify the so-called layer-lattice solids in which strong covalent or ionic forces form bonds between atoms in an individual layer while weaker Van der Waal's forces form bonds between the layers.

This clearly teaches the skilled artisan what appellant intends by "barrier-layer" lubricants and not only provides examples of some useful materials, but also clearly conveys to them how to select other similar materials known in the art. Again, in setting out his invention by disclosing a very large number of the art-known lubricants, but not all of them, appellant follows the historic legal criterion that allows him to "begin at the point where his invention begins, and describe what he has made that is new, and what it replaces of the old. That which is common and well known [such as the art known lubricants] is as if it were written out in the [application]" Webster Loom Co., 105 U.S. at 586.

Separate Argument Pursuant to 37 C.F.R. § 41.37 (c) (1) (vii) Regarding the Rejection of Claims 68, 72-79, and 95 Under 35 U.S.C. § 112 First Paragraph

The Written Description Enables Claims 68, 72-79, and 95 Relating to Substantially Anhydrous Compositions

The examiner argues the specification does not support a substantially anhydrous composition. Appellant disagrees. Pages 28-29 of the written description teach how to produce a substantially water free, i.e., a substantially anhydrous lubricating composition as follows:

The lubricant and additives, when employed, are combined with the superabsorbent polymer by swelling the polymer either by itself or dispersed with the lubricant (and additives when employed), either in water or in a high humidity environment, e.g. 80% R.H.

Prior to, or after exposing the superabsorbent polymer to water or humidity, the polymer, in the form of a powder, flakes or granules is mixed with the lubricant in a conventional mixer, such as a HOBART™ mixer until a uniform dispersion is obtained. . . .

The lubricant then combines with, or is taken up by the superabsorbent polymer that has been swollen with water. The lubricant composition is then dried to remove the water, for example by placing it in a 27-38% R.H. environment, or under vacuum or at elevated temperatures. This removes substantially all of the water introduced in the first part of the process. (Emphasis added).

This clearly provides a disclosure to the skilled that the invention pertains to a substantially water free or anhydrous composition.

The rejection under 35 USC § 102 (b)

The examiner rejects claims 29, 31, 32, 68, 72, 73, 85, 93, and 95-97 under 35 U.S.C. § 102(b) as anticipated by Takayama, United State Patent 5,792,717.

The examiner cites Takayama for the disclosure of a monolithic boron nitride ceramic body article of manufacture that has open pores filled with a water absorbing resin. This is not appellant's particulate boron nitride composition combined with a superabsorbent resin. To apply this reference to reject the present claims would require taking the Takayama article and using it to lubricate a substrate, e.g., putting the Takayama article of manufacture between two sliding surfaces that frictionally engage one another. Standing by itself, it does not teach appellant's claimed "particulate" lubricant composition which as pointed out above, appellant has disclosed in great detail on pages 3-4, 14-18, and 27, and page 25 first paragraph, noting "mixtures of the solid or particulate lubricants (of the invention) can be used. . . ." Clearly, appellants claimed particulate lubricant composition distinguishes the Takayama monolithic article of manufacture.

The examiner also states that "Takayama teaches the composition has lubricity properties (see col.4, lines 30-43)." (April 11, 2006 Office Action, p. 5, lines1-2) Appellant respectfully disagrees. This section of the Takayama reference only describes adjusting the porosity of the monolithic ceramic substrate so that it can hold an appropriate amount of lubricating water by means of the water absorbing polymer in the porous structure. Takayama uses water to perform the lubricating operation and states:

If the volume of the pores in the porous ceramic bodies is unduly high, sliding materials constructed by filling them with high water absorbing resins will have an impractically low mechanical strength. To avoid this problem, the volume of open pores in the ceramic bodies should preferably not exceed about 40%. On the other hand, if the volume of open pores is less than about 5%, the loading of high water absorbing resins in the open pores will decrease, making it difficult for the surface of the ceramic bodies to fully exhibit the intended lubrication by the combination of the water or moisture absorbing resins and their water retaining capacity. To avoid this problem, the volume of open pores in the ceramic bodies should preferably be not less than about 5%.

Takayama, col.4, lines 30-43, emphasis added.

This section of the reference addresses the lubricity of the water absorbed by the resin, specifically noting that water provides lubrication, and by impregnating the water absorbing polymer into the porous ceramic in increased amounts lubricity improves. The inventor achieves this by employing a monolithic ceramic material with relatively high porosity to increase the loading of water absorbent polymer into the ceramic and thereby increasing the amount of lubricating water made available to the bearing surface. Takayama does this with a monolithic ceramic, and not a particulate metal nitride lubricant. Takayama therefore does not anticipate appellant's claimed particulate metal nitride lubricating composition.

The Rejection Under 35 USC §103 (a)

The examiner rejects claims 29, 31, 34-38, 41, 42, 48, 49 and 53 under 35 U. S. C. § 103 (a) as unpatentable over Johnson, United States Patent No. 5, 275,760 in view of Obayashi et al. United States Patent No. 4,340,706 ("Obayashi").

Johnson does not teach or suggest:

a lubricating composition of matter comprising a polymer, where the polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein the material for lubricating a surface comprises:

- (1) a lubricating metal and alloy thereof, a lubricating metal chalcogenide, halide, carbonate, silicate or phosphate, or a particulate lubricating metal nitride, or a carbon lubricant; or
- (2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;

(3) where the material for lubricating a surface optionally contains a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or

(4) mixtures thereof.

On the contrary, Johnson describes the use of "oils" with a polymer, noting that "[o]ils are a suitable carrier medium [that] . . . include fixed oils such as glycerol fatty acids, lubricating oils, mineral oils, hydrocarbon oils such as crude petroleum, residual refinery oils from bottom streams, diesel oils, fuel oils and the like. In the present method, a food grade mineral oil is preferred. . . ." (Johnson, col. 4, lines 24-29). These bear no chemical resemblance to the claim 29 inorganic materials for lubricating a surface or the "silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound" class of materials for lubricating a surface.

The examiner correctly distinguishes the broader teachings of Johnson at page 6 of her April 11, 2006 Office Action, but appellant distinguishes the reference inter alia because it fails to teach or suggest the use of an inorganic lubricating material or the "silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound" class of materials for lubricating a surface. Obayashi does not overcome the deficiencies of the Johnson reference.

The examiner rejects claims 29, 31, 35, 53, 55, 56, 61, 68, 72, 85, 93, 95-97 under 35 USC. § 103 (a) as unpatentable over Martineu et al., United States Patent No. 4,977,192 ("Martineu").

The examiner in applying the disclosure of Martineu concludes that Table IV of the reference teaches polymers that absorb from 100% to over 300% water, and argues the reference describes combinations of the polymer with various clay-like materials. Appellant distinguishes the reference on the grounds that polymers that absorb from 100% to over 300%

water are not superabsorbent, i.e., they only absorb from one to three times their weight in water, whereas the superabsorbent polymers of the present invention absorb greater than about 100 times their weight in water. Martineu does not teach or suggest these or any other superabsorbent polymers.

The examiner in attempting to rebut this distinction of Martineu argues "It would be reasonable to expect that the polymers of Martineu would meet . . . [the limitation of absorbing greater than about 100 times its weight in water] because the polymers are prepared in the same manner as super absorbent polymers (see col. 4, lines 48-56), absent evidence to the contrary." (April 11, 2006 Office communication p.7, first paragraph). The examiner attempts to shift the burden to appellant to provide contrary evidence when in fact she has not presented prima facie evidence to show that the Martineu conditions would produce a superabsorbent polymer. "The . . . concept of prima facie obviousness is a procedural tool of examination . . . [that] allocates . . . the burden of going forward with . . . evidence in each step of the examination process The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness. If, however, the examiner does . . . , the burden of coming forward with evidence or arguments shifts to the applicant . . ." ¹ (Citations omitted). The examiner has not met the burden of proof incumbent on her, but merely speculates that using the method of Martineu would produce superabsorbents. This, however, also suggests Martineu's method could just as easily yield polymers with less than the water absorption of those obtained in the examples, e.g., less than 50% or less than 10% absorption of water. What experimental data has the examiner pointed out to show the conditions of manufacturing the Martineu polymers track manufacturing methods for producing superabsorbent polymers? She has cited nothing in Martineu, let alone

¹ Manual of Patent Examining Procedure § 2142

the superabsorbent polymer manufacturing arts to support her theory. The argument therefore lacks substantial evidence to support it.

Furthermore, what motivation does Martineu provide to the skilled artisan to modify the disclosed process to obtain superabsorbent polymers? The answer clearly is that the reference does not. In these circumstances, finding motivation in the reference amounts to hindsight, and case law bars this practice. A 35 U.S.C. § 103 rejection cannot stand if it amounts to taking appellant's "claims as a frame and the prior art . . . as a mosaic to piece together a facsimile of the claimed invention." W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 220 U.S.P.Q. 303 (Fed. Cir. 1983).

In fact, Martineu eschews the use of superabsorbent polymers. He provides example 4 at column 8, lines 15-33 to show his polymers that only absorb 1 to 3 times their weight in water give superior results to superabsorbent polymers. He compares his polymers, highly cross-linked acrylates obtained by using large amounts of cross-linking agents or ionizing radiation² to AQUASORB® A700, a superabsorbent polymer³, and reports AQUASORB® falls way short of meeting the criteria of his highly cross-linked polymers. The technical literature⁴ further describes "AQUASORB [as a superabsorbent polymer that] does not contain a cross-linking agent." (Emphasis added). Martineu's use of cross-linking agents and the absence of them in the superabsorbent polymer AQUASORB® which Martineu found unsatisfactory, not only would lead the skilled artisan away from using superabsorbent polymers in the Martineu composition, but also would lead the skilled artisan away from altering the Martineu polymerization process to obtain superabsorbent polymers as the examiner argues.

2 Martineu, paragraph bridging columns 4 and 5.

3 Appellant's written description, page 21, last par.

4 http://www.herc.com/aqualon/construction/cons_brochure/slect_guide/cons_bro_sg_aquas... site last visited 6/6/2005

In conclusion, appellant requests the board to reverse the examiner in all respects and remand the application to the examiner. At a minimum, on remand, the examiner has to issue a Notice of Allowance as to unrejected claims 39 and 40, and the claims the examiner objected to, claims 57, 59, 63, 65, 86-92, and 94. Appellant will amend the claims objected to if necessary to incorporate any limitations of the claims from which they depend.

Respectfully submitted,

THE LAW OFFICES OF ROBERT J. EICHELBURG

September 24, 2007

By: /Robert J. Eichelburg, Reg. No. 23,057/
Robert J. Eichelburg

CERTIFICATE OF FACSIMILE TRANSMISSION PURSUANT TO 37 C.F.R. § 1.6 (d)

I hereby certify that this correspondence is being transmitted pursuant to 37 C.F.R. § 1.6(d) by facsimile to The United States Patent and Trademark Office, Central FAX Number (571) 273-8300 on the date indicated below.

September 24, 2007

By: /Robert J. Eichelburg, Reg. No. 23,057/
Robert J. Eichelburg

(vii) Claims Appendix

Claim 29 A lubricating composition of matter comprising a polymer, where said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein said material for lubricating a surface comprises:

- (1) a lubricating metal and alloy thereof, a lubricating metal chalcogenide, halide, carbonate, silicate or phosphate, or a particulate lubricating metal nitride, or a carbon lubricant; or
- (2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;
- (3) said material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or
- (4) mixtures thereof.

Claim 30 A lubricating composition of matter comprising a polymer, where said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein said material for lubricating a surface comprises a solid or particulate inorganic lubricant, containing an organic lubricant, optionally comprising water, or a lubricant additive,
or mixtures thereof.

Claim 31 The composition of one of claims 29 or 30 wherein said material for lubricating a surface comprises, a carbon, or a metal material that provides barrier-layer lubrication, or mixtures thereof.

Claim 32 The composition of one of claims 29 or 30 wherein said material for lubricating a surface comprises graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, or the Group VIII noble metals or mixtures thereof.

Claim 34 The composition of one of claims 29 or 30 which includes a material comprising a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or co-polymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 35 A lubricating composition of matter comprising a polymer wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, wherein said material for lubricating a surface comprises water containing a lubricant additive.

Claim 36 The lubricating composition of claim 30 wherein said organic lubricant comprises an oil or grease thereof or mixtures thereof and said material for lubricating a surface also comprises water.

Claim 37 A lubricating composition of matter of one of claims 29 or 30, wherein said material for lubricating a surface includes water.

Claim 38 The composition of claim 37 where said material for lubricating a surface comprises graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, the Group VIII noble metals, a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or co-polymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 39 A lubricating composition of matter comprising a polymer wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, wherein said material for lubricating a surface comprises a phosphate, and wherein said material for lubricating a surface optionally contains a lubricant additive.

Claim 40 The composition of claim 39 where said phosphate comprises tricresyl phosphate, zinc phosphate, iron phosphate or manganese phosphate, or mixtures thereof.

Claim 41 The composition of one of claims 29 or 30 wherein said organic lubricant comprises a fatty oil, or fatty acid or wax, or mixtures thereof.

Claim 42 The composition of claim one of claims 29 or 30 wherein said organic lubricant comprises a synthetic oil lubricant, or greases thereof, or two-mol ethoxylate of isostearyl alcohol, or mixtures thereof.

Claim 43 The composition of one of claims 29 or 30 wherein said organic lubricant comprises a soap.

Claim 48 The composition of one of claims 29 or 30 wherein said organic lubricant comprises a polymerized olefin.

Claim 49 The composition of one of claims 29 or 30 wherein said organic lubricant comprises an organic ester.

Claim 53 The composition of one of claims 29 or 30 where said superabsorbent polymer absorbs greater than about 100 times its weight in water and comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof, and wherein said lubricant additive comprises an antioxidant, rust inhibitor, antiwear compound, extreme pressure additive, detergent, dispersant, pour point depressant, viscosity-index improver, or foam inhibitor.

Claim 55 A lubricating composition of matter comprising a polymer, wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface which comprises a chalcogenide of a non-noble metal or mixtures of chalcogenides of a non-noble metal, optionally containing a lubricant additive.

Claim 56 The composition of claim 37 wherein said material for lubricating a surface comprises a chalcogenide of a non-noble metal or mixtures of chalcogenides of a non-noble metal.

Claim 57 The composition of claim 55 wherein said material for lubricating a surface comprises a chalcogenide of molybdenum, antimony, niobium, and tungsten and mixtures of said chalcogenides.

Claim 58 The composition of claim 37 wherein said material for lubricating a surface comprises a chalcogenide of molybdenum, antimony, niobium, and tungsten and mixtures of said chalcogenides.

Claim 59 The composition of claim 55 wherein said material for lubricating a surface comprises a sulfide of molybdenum, antimony, niobium, and tungsten and mixtures of said sulfides.

Claim 60 The composition of claim 37 wherein said material for lubricating a surface comprises a sulfide of molybdenum, antimony, niobium, and tungsten and mixtures of said sulfides.

Claim 61 The composition of any one of claims 55 or and 57 wherein said mixture comprises a two component mixture of said materials for lubricating a surface.

Claim 62 The composition of claim 56 wherein said mixture comprises a two component mixture of said materials for lubricating a surface.

Claim 63 The composition of any one of claims 55 or and 57 wherein said mixture comprises a three component mixture of said materials for lubricating a surface.

Claim 64 The composition of claim 56 wherein said mixture comprises a three component mixture of said materials for lubricating a surface.

Claim 65 The composition of any one of claims 55 or and 57 wherein said mixture comprises a four component mixture of said materials for lubricating a surface.

Claim 66 The composition of claim 56 wherein said mixture comprises a four component mixture of said materials for lubricating a surface.

Claim 67 A lubricant composition of any one of claims 29 or 30 wherein said organic lubricant comprises a grease or oil, or mixtures thereof.

Claim 68 The composition of any one of claims 29, 30, 31, 32 39, 55, or 57 wherein said composition is substantially anhydrous.

Claim 72 The composition of claim 31 wherein said composition is substantially anhydrous.

Claim 73 The composition of claim 32 wherein said composition is substantially anhydrous.

Claim 74 The composition of claim 34 wherein said composition is substantially anhydrous.

Claim 75 The composition of claim 39 wherein said composition is substantially anhydrous.

Claim 76 The composition of claim 40 wherein said composition is substantially anhydrous.

Claim 77 The composition of claim 41 wherein said composition is substantially anhydrous.

Claim 78 The composition of claim 42 wherein said composition is substantially anhydrous.

Claim 79 The composition of claim 48 wherein said composition is substantially anhydrous.

Claim 80 The composition of claim 58 wherein said mixture comprises a two component mixture.

Claim 81 The composition of claim 58 wherein said mixture comprises a three component mixture.

Claim 82 The composition of claim 58 wherein said mixture comprises a four component mixture.

Claim 83 A process of producing a lubricating composition of matter comprising combining a polymer with a material for lubricating a surface;

wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water; and

wherein said material for lubricating a surface comprises a solid or particulate inorganic lubricant containing an organic lubricant, optionally comprising water, or a lubricant additive; or mixtures thereof.

Claim 84 A product produced by the process of claim 83.

Claim 85 A lubricating composition of matter comprising a polymer, where said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein said material for lubricating a surface comprises:

(1) graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, particulate boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbit, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, the Group VIII noble metals or mixtures thereof; or

(2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;

(3) said material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or

(4) mixtures thereof.

Claim 86 The composition of claim 85 which includes a material comprising a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or copolymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 87 A lubricating composition of matter of one of claims 85 or 86, wherein said material for lubricating a surface includes water.

Claim 88 The composition of one of claims 85 or 86 wherein said organic lubricant comprises a fatty oil, or fatty acid or wax, or mixtures thereof.

Claim 89 The composition of claim one of claims 85 or 86 wherein said organic lubricant comprises a synthetic oil lubricant, or greases thereof, or two-mol ethoxylate of isostearyl alcohol, or mixtures thereof.

Claim 90 The composition of one of claims 85 or 86 wherein said organic lubricant comprises a soap.

Claim 91 The composition of one of claims 85 or 86 wherein said organic lubricant comprises a polymerized olefin.

Claim 92 The composition of one of claims 85 or 86 wherein said organic lubricant comprises an organic ester.

Claim 93 The composition of one of claims 85 or 86 where said superabsorbent polymer absorbs greater than about 100 times its weight in water and comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof, and wherein said lubricant additive comprises an antioxidant, rust inhibitor, antiwear compound, extreme pressure additive, detergent, dispersant, pour point depressant, viscosity-index improver, or foam inhibitor.

Claim 94 A lubricant composition of any one of claims 85 or 86 wherein said organic lubricant comprises a grease, or oil, or mixtures thereof.

Claim 95 The composition of any one of claims 85 or 86 wherein said composition is substantially anhydrous.

Claim 96 A process of producing a lubricating composition of matter comprising combining a polymer with a material for lubricating a surface;

wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water; and

wherein said material for lubricating a surface comprises:

(1) graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, particulate boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbit, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, the Group VIII noble metals or mixtures thereof; or

(2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine compound;

(3) said material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or water, or a lubricant additive; or

(4) mixtures thereof.

Claim 97 A product produced by the process of claim 96.

(ix) Evidence Appendix

Appellant submits no evidence.

(x) Related Proceedings Appendix

Appellant attaches a copy of the Board's February 27, 2006 decision in application Serial No. 08/943,125 and a certified copy of the file jacket of application Serial No. 08/943,125 showing the Patent and Trademark Office labeled it as an application involved in an interference. Appellant submitted a copy of the file jacket of application Serial No. 08/943,125 to the Board in that appeal.

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

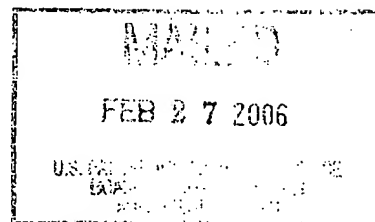
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD LEVY

Appeal No. 2005-2667
Application 08/943,125

ON BRIEF:



Before PAK, WARREN and KRATZ, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

ORDER VACATING ORAL HEARING

On January 25, 2006, Mr. Craig R. Feinberg, a Program and Resources Administrator of the Board of Patent Appeals and Interferences, informed appellant's counsel, Mr. Robert J. Eichelburg, that the Merits Panel assigned to this application had decided to reverse the decision of the examiner. Mr. Feinberg further informed Mr. Eichelburg that therefore, the Oral Hearing scheduled for January 25, 2006, will be vacated.

Accordingly, as counsel was informed on January 25, 2006, it is ORDERED that the Oral Hearing scheduled for 1:00 PM on January 25, 2006, is *VACATED*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, and based on our review, find that we cannot sustain the rejection of appealed claims 43, 44, 49, 50, 55 and 56 under 35 U.S.C. § 102(b) as being anticipated by the Geursen et al. (Geursen) references

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United States Patent 5,534,304 ('304 reference) and WO 93/18223 ('223 reference)¹, which are in the same patent family (answer, pages 3-5 and 6-7).^{2,3}

We refer to the answer and to the brief and reply brief for a complete exposition of the positions advanced by the examiner and appellant.

It is well settled that the examiner has the burden of making out a *prima facie* case of anticipation in the first instance by pointing out where each and every element of the claimed invention, arranged as required by the claim, is described identically in a single reference, either expressly or under the principles of inherency, in a manner sufficient to have placed a person of ordinary skill in the art in possession thereof. See *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Whether the teachings and inferences that one skilled in this art would have found in the disclosure of an applied reference would have placed this person in possession of the claimed invention, taking into account this person's own knowledge of the particular art, is a question of fact. See generally, *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), and cases cited therein (a reference anticipates the claimed method if the step that is not disclosed therein "is within the knowledge of the skilled artisan."); *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968) ("[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom."). While it is entirely appropriate to rely on another reference to clarify a fact in the anticipating reference; see generally, *In re Samour*, 571 F.2d 559, 562, 197 USPQ 1, 4 (CCPA 1978), the supporting reference must in fact accomplish that purpose.

The principal issue in this ground of rejection is whether the lubricating compositions

¹ The answer incorrectly identifies the '223 reference as "WO 93/18233."

² The examiner withdrew the ground of rejection of appealed claims 45 through 48, 51 through 54, 57 and 58 under 35 U.S.C. § 103(a) as being unpatentable over the Geursen et al. references further in view of the admitted prior art and Sayad et al., set forth in the Office action mailed May 24, 2002 (pages 5-7) and maintained in the Office action mailed December 18, 2003. The examiner objected to these claims as containing allowable subject matter but dependent on a rejected base claim (answer, page 2). We consider the ground of rejection under the judicially created doctrine of obviousness type double patenting below.

³ Claims 43 through 48 are all of the claims in the application. See page 2 and the appendix of the brief filed March 13, 2003, which we consider on appeal.

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containing any "superabsorbent polymer which absorbs greater than about 100 times its weight in water" in the claimed method of lubricating a surface, encompassed claim 43, and the lubricating compositions containing any "superabsorbent polymer which absorbs greater than about 100 times its weight in water and is a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof" in the claimed method of lubricating a surface, encompassed in the remainder of the rejected claims, would have been described to one skilled in this art within the meaning of § 102(b) by the Geursen references.

The examiner takes the position that the Geursen references teach compositions which contain "a superabsorbent material" that is disclosed to be "capable of absorbing and holding a comparatively large quantity of water" which can be made from absorbent derivatives of polyacrylic acid including homo- and copolymers derived from acrylic acid and acrylamide (answer, page 3) ('223 reference, page 6, ll. 5-32; '304 reference, col. 3, ll. 33-67). In the statement of the ground of rejection, the examiner does not identify any specific polymer disclosed *per se* in the Geursen references as meeting the subject claim limitations, but contends that

Geursen incorporates the teachings of Arroyo et al (Arroyo) EP 0,351,100^[4,5] that the [superabsorbent material] includes the ARIDALL^[TM] polymers that are known to absorb greater than 100 times its weight in water. Appellant makes admission on record at page 21 to the bridging paragraph of pages 22-23 of the instant specification that conventional known [superabsorbent material] that absorbs greater than 100 times its weight in water of the Admitted Prior Art are the [superabsorbent material] used in the instant claims. Appellant makes admission on record at line 17 of [page 22] of the instant specification that the ARIDALL^[TM] POLYMERS of the Admitted Prior Art of Arroyo is the [superabsorbent material] used in the instant claims. [Answer, page 4.]

Contrary to appellant's contentions (brief, page 14; reply brief, page 2), the Geursen references teach that insoluble superabsorbent materials that can be used include those "mentioned in . . . [Arroyo]" which are described as "derived from an aqueous solution comprising an acrylate polymeric material which combines acrylic acid and sodium acrylate

⁴ European Patent Application published January 17, 1990.

⁵ We cannot find Arroyo in a PTO-892, a PTO-1449 or elsewhere in the official electronic file of the USPTO for this application. Thus, if the examiner cannot locate evidence in the official electronic file of the USPTO for this application that Arroyo was made of record, the examiner should make it of record.

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functionalities and water" ('223 reference, page 2, ll. 10-17, and page 6, ll. 9-11; '304 reference, col. 1, ll. 45-53, and col. 3, ll. 37-40). We find that Arroyo describes superabsorbent materials generally, including those based on polyacrylic acid and polyacrylonitrile, and discloses that "[t]he preferred superabsorbent material is Aridall™ 1125F Superabsorbent Polymer available from the Chemdal Corporation," and that "Aridall polymers are crosslinked acrylic polymers" (col. 5, l. 35, to col. 7, l. 1).

Appellant discloses in the written description in the specification that "[t]he superabsorbent polymer employed according to the invention, absorbs from about 25 to greater than 100 times its weight in water and comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile or acrylamide, including co-polymers thereof or starch graft copolymers thereof or mixtures thereof, where the mixtures contain from 2 to about 3 or 4 superabsorbent polymers" (page 21, ll. 1-7). Appellant further discloses that the superabsorbent polymers include those listed in certain United States Patents as well as certain commercially available polymers (pages 21-23). Included among the latter is "Aridall™ which are sodium or potassium polyacrylates that may be lightly cross-linked" (page 22, ll. 17-18).

Appellant argues in the brief that the "swelling value" disclosed in Geursen references includes "the relative water absorbency of the yarn or the yarn coated with the superabsorbent polymer composition," and provides a supporting explanation based on the disclosure in Example I, including Table A, of the references for the contention that the same would not have disclosed "superabsorbent polymers that can absorb greater than about 100 times their weight in water" (brief, pages 6-10 and 12; *see* reply brief, page 6). The composition includes "Mirox W 45985" which is a superabsorbent polymer that "is a terpolymer of acrylamide, carboxyl groups- and sulpho groups-containing polymers" ('223 reference, pages 15-17; '304 reference, cols. 8-9).

In response to appellant's arguments in the brief, the examiner points to the disclosure in the Geursen references that "[d]epending on the nature of the substrate and the quantity and nature of the superabsorbent material applied thereto, the swelling values ranges from 50 to 700 or higher, more particularly from 100 to 700 or higher" ('223 reference, page 2, ll. 10-17, and page 6, ll. 9-11; '304 reference, col. 7, ll. 2-6) (answer, page 6).

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Appellant points out in the reply brief that "neither[the Geursen references] nor Arroyo claim that the ARIDALL™ 1125F disclosed in Arroyo can absorb greater than 100 times its weight in water," and that this material is not disclosed in his specification (pages 3-4). Appellant states that "an internet search" did not "find" this material (*id.*, page 3).

On this record, we agree with appellant that the examiner has not identified any evidence in the Geursen references and Arroyo which support the ground of rejection. In order to factually support the ground of rejection, the examiner must establish as a matter of fact that at least one superabsorbent material in the references met the subject claim limitations in the appealed claims. This cannot be accomplished by combining a disclosed general range of absorbent values of superabsorbent materials which overlaps the claimed absorbent range of "greater than about 100 times its weight in water," with a particular superabsorbent material, and especially since there is no disclosure in any of the references or in appellant's specification which would place the particular species within the claimed absorbent range, either expressly or under the principles of inherency. See *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 780, 227 USPQ 773, 777 (Fed. Cir. 1985) ("[A]nticipation under § 102 can be found only when the reference discloses exactly what is claimed."). Therefore, the examiner has not established a *prima facie* case of anticipation under 35 U.S.C. § 102(b) as a matter of fact and accordingly, we reverse this ground of rejection.

Other Issues

Upon further consideration of the appealed claims by the examiner subsequent to the disposition of this appeal, the examiner should consider whether the Geursen references alone (see, e.g., Geursen '223, page 5, l. 19, to page 6, l. 32, and page 12, l. 18, to page 13, l. 3), or together with appellant's admissions in the specification (page 21, l. 1, to page 23, l. 4), which suggest that superabsorbent materials that absorb greater than about 100 times their weight in water were known, affect the patentability of the claimed invention under 35 U.S.C. § 103(a).

REMAND TO THE EXAMINER

We remand the application to the examiner for consideration and explanation of issues raised by the record. 37 CFR §1.41.50(a)(1) (2005); Manual of Patent Examining Procedure (MPEP) § 1211 (8th ed., Rev. 2, May 2004; 1200-29 – 1200-30).

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The examiner provisionally rejected appealed claims 43 through 57⁶ under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 72 through 86 of then copending application 08/943,123 (answer, pages 5-60). This application has since matured into United States Patent 6,734,147 ('147 patent), issued May 11, 2004.

Appellant filed a terminal disclaimer along with the reply brief on December 8, 2003, "to overcome the double patenting rejection" (reply brief, page 9). The examiner acknowledged that the terminal disclaimer "is proper and has been entered into the file," but did not state the status of the ground of rejection in view thereof in the communication mailed February 27, 2004.

Accordingly, the examiner is required to take appropriate action consistent with current examining practice and procedure to determine whether the terminal disclaimer overcomes the ground of rejection, and if not, to state the ground of rejection based on the appealed claims vis-à-vis the claims of the '147 patent, setting forth the status of appealed claim 58 in this respect, with a view toward placing this application in condition for decision on appeal with respect to the issues presented.

This remand is made for the purpose of directing the examiner to further consider the ground of rejection. Accordingly, if the examiner submits a supplemental answer to the Board in response to this remand, "appellant must within two months from the date of the supplemental examiner's answer exercise one of" the two options set forth in 37 CFR §1.41.50(a)(2) (2005), "in order to avoid *sua sponte* dismissal of the appeal as to the claims subject to the rejection for which the Board has remanded the proceeding," as provided in this rule.


We hereby remand this application to the examiner, via the Office of a Director of the Technology Center, for appropriate action in view of the above comments.


⁶ The examiner did not include appealed claim 58 in this ground of rejection (answer, page 5; Office action mailed May 24, 2002, page 7; Office action mailed December 18, 2003, page 3), and thus this claim stands unrejected on appeal.

Appeal No. 2005-2667
Application 08/943,125

Reversed

Remanded


CHUNG K. PAK
Administrative Patent Judge


CHARLES F. WARREN
Administrative Patent Judge


PETER F. KRATZ
Administrative Patent Judge

BOARD OF PATENT
APPEALS AND
INTERFERENCES

Appeal No. 2005-2667
Application 08/943,125

The Law Offices of Robert J. Eichelburg
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PN 284278

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

August 21, 2000

THIS IS TO CERTIFY THAT ANNEXED IS A TRUE COPY FROM THE
RECORDS OF THIS OFFICE OF:

A COPY OF THE COVER JACKET ONLY.

SERIAL NUMBER: 08/943,125

FILING DATE: October 03, 1997



By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

L. Edelen

L. EDELEN
Certifying Officer

REPLY
MRS COOK

ADJUDICATE

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|-----------------------|-------------|---------------|----------|
| UTILITY SERIAL NUMBER | PATENT DATE | PATENT NUMBER | |
| SERIAL NUMBER | FILING DATE | CLASS | EXAMINER |
| | | 508 | medley |
| SUBCLASS | | | |
| GROUP ART UNIT | | | |
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APPLICANTS

hbm

hbm

CPA

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|---|---|----------|------------------|----------------|--------------|--------------|---------------------|----------------------|
| Foreign priority claimed 35 USC 110 conditions met | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no | AS FILED | STATE OR COUNTRY | SHEETS DRAWGS. | TOTAL CLAIMS | INDEP CLAIMS | FILING FEE RECEIVED | ATTACHMENTS DOCKETED |
| Verified and Acknowledged | | | | | | | | |

ADDRESS

TITLE

U.S. DEPT. OF COM. / PAT. & TRADEMARK OFFICE (P/T/O) (Rev. 12-00)

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|--|--|-----------------------|--|
| PARTS OF APPLICATION FILED SEPARATELY | | CLAIMS ALLOWED | |
| NOTICE OF ALLOWANCE MAILED | | ISSUE FEE | |
| Amount Due | | Date Paid | |
| Label Area | | Primary Examiner | |
| Prepared for Issue | | Issue Batch Number | |
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|------------------------------------|--------------------------------|---------------------|----------------------------|-------------------------------|---------------------------|
| SERIAL NUMBER 08/943,125 | FILING DATE 10/03/97 | CLASS 508 | SUBCLASS 009 110 | GROUP ART UNIT 1721 | EXAMINER medley |
|------------------------------------|--------------------------------|---------------------|----------------------------|-------------------------------|---------------------------|

APPLICANTS RICHARD LEVY, MYLES, FL

****CONTINUING DATA****
 VERIFIED THIS APPLN IS A CON OF 08/487,436 06/07/95
NBM

****FOREIGN/PCI APPLICATIONS****
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FOREIGN FILING LICENSE GRANTED 11/17/97 ***** SMALL ENTITY *****

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|---|---|-------------|---------------------------|------------------------|-----------------------|-----------------------|------------------------|--------------------------|
| Foreign priority claimed 35 USC 119 conditions met | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no | AS FILED | STATE OR COUNTRY FL | SHEETS DRAWGS. 0 | TOTAL CLAIMS 11 | INDEP. CLAIMS 1 | FILING FEE RECEIVED | ATTORNEY'S DOCKET NO. |
|---|---|-------------|---------------------------|------------------------|-----------------------|-----------------------|------------------------|--------------------------|

Verified and Acknowledged *NBM* Examiner's Initials

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TITLE LUBRICANT COMPOSITIONS AND METHODS

U.S. DEPT. OF COMM. / PAT. & TM.—PTO-456L (Rev. 12-84)

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| PARTS OF APPLICATION FILED SEPARATELY | | Applicant's Examiner | |
| NOTICE OF ALLOWANCE MAILED | | CLAIMS ALLOWED | |
| | | Issue Fee | Priority |
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| Amount Due | Date Paid | Sheet Drawn | Page Drawn |
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I hereby certify that I am transmitting this correspondence to the United States Patent and Trademark Office pursuant to 37 C.F.R. § 1.6 (d) at their central FAX number (571) 273-8300 on the date indicated below.

Dated September 24, 2007

By: /Robert J. Eichelburg, Reg. No. 23,057/
Robert J. Eichelburg